

2006-2008 Investigation of the Old Eskimo Settlement Kivak, Providenskiy District, Chukotka Autonomous Region, Russia

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In 2006-2008 an archeological team from North-eastern State University (NESU) in Magadan, Russia, conducted emergency rescue work on the archeological monuments near Kivak Lagoon, based on a request from the Department of Culture of Chukotka Autonomous Region. The money from a designated fund financed this research, which was overseen by A. Os'kin and E. Rogozina. The main goal was to research the 65 feet (20 m) stretch of coast that is being destroyed by surf waves.

The remains of a semi-subterranean dwelling with two cultural layers has been partially (50%) preserved here. The first cultural layer was located at a depth of 2.8-3.7 ft (0.85-1.1 m) and 16.3-17.2 ft (4.9-5.15 m) above sea level. Its thickness is 0.7-1.2 ft (0.2-0.35 m). The layer is composed of dark brown sandy loam saturated with fat (of pinnipeds?) and contains the artifacts of the Punuk Culture.

The second layer, which is characteristic of Old Bering Sea Culture, is located at a depth of 5.8-7.3 ft (1.75-2.2 m). It has a thickness of 1.2-1.5 ft (0.35-0.45 m), and is 14.7-15.8 ft (4.4-4.75 m) above sea level. This layer is composed of dark brown sandy loam, which includes a large number of baleen strips of different sizes that are located at the same depth. These strips seem to have been used as a floor covering for thermal and hydro-insulation, and, perhaps, for hygiene purposes. The unearthed covering stretches for 173 ft (52 m) and corresponds, not just to the footprint of the dwelling, but, possibly to the household chore area (dressing of animal carcasses?).

A large number of household items, marine mam-

mal hunting and fishing tools, as well as tundra and coastal gathering tools, and pieces of ceramic were found in the talus of the cultural layers near the dwelling and at the dwelling excavation site. The found items are mainly made of marine mammal bone, reindeer bone and antler, walrus tusk, skin, wood, stone (siliceous schist is prevalent), whale baleen, and clay.

This article will characterize the complex of dwelling #1 of Kival Settlement. The tool assembly for winter household activities, such as pinniped hunting near ice holes, under ice fishing, winter transportation of catch, moving across the frozen snow crust and ice, and clearing the ice holes of ice attest that this was a winter dwelling.

The large number of the ivory items are covered with carved decoration. Judging from the straight lines and the edges of the cuts, the artifacts were carved with iron gravers. The blade of one graver and two whole gravers attached to bone composite handles were discovered in the Old Bering Sea cultural layer. The tools mainly made out of the walrus tusk with characteristic delicate complex Old Bering Sea ornamentation are the most interesting. The linear geometrical motifs are characteristic. The main elements of the ornamentation are parallel lines (from two to five) that often form various figures (with different configurations) such as oval, half oval, circle, triangle, lines connecting different elements, lines with short perpendicular lines, teeth, and dots. Complex compositions accordingly fill out and organize the surface of the object with consideration for its shape. As a rule the ornamentation covers the whole surface of the tool.

The toggling harpoon points with the side inserts are the most characteristic feature of the Old

Bering Sea culture. Many different sizes of the decorated toggling harpoon points (28 whole points and 5 fragments) of the Old Bering Sea type were found. The harpoon points have single (sometimes double or triple) prongs, one hole for the rope [lin'], and grooves for the two side flint retouched inserts. In ten cases, the center of the circles and ovals were marked with round convexity. Tools with such micro-relief are characteristic for the Old Bering Sea Culture. One harpoon point has a slit at the tip for the spike insert and a small hole on a prong (for poison?). Punuk toggling harpoon points (including the whale ones) with one prong and one hole for the rope, have a slit for the spike insert.

Other elements of the harpoon assembly are present in the tool assemblages. The spiked base of the harpoon shaft, made of walrus ivory, in their form and function resemble the analogical ice pick (called *peshnya* in old Russian) with a groove and notches for the fastening according to the Old Bering Sea type, and with a prominent stem with the Punuk type notching. The base-support of the harpoon shaft with an opening for the insert made out of walrus ivory and wooden nozzles with plugs for the floats (Punuk) were discovered as well.

The stabilizers (the "winged object" of the Old Bering Sea Culture) of the harpoon shaft bases (6 whole objects and 2 fragments), the most important elements of the harpoon complex, were also found. Three were decorated on two sides with complex linear ornament in combination with ovals, circles, dashes, dots, triangles, cogs. The Punuk stabilizer ("trident") was decorated with floral ornamentation. The gaffs made out of walrus ivory were used for bringing the bodies of the pinnipeds closer to the boats.

The eight sewed on badges or buttons are especially interesting. Seven are made of walrus ivory and one of wood. Five ivory badges are decorated. Each badge has on its lower surface a special hole so it is possible to sew them onto hide clothing. One badge had a number of through holes along its perimeter which possible were used for fastening. The badges vary in sizes from 10 x 4 cm to 5 x 3 cm. The four badges have an oval form and one has a lens-like form. On one of the badges, along the edge of the artifact are two parallel lines that form an oval with a combination of “eye-lashed” and dashed ornamentation. Two of the badges have a more complex composition that covers the whole surface. In one case, there are concentric ovals, dots, and “eye-lashed” ornamentation, and in the other case, the triangles, lenses, cogs and punched holes are used in the composition.

Currently there are two analogical artifacts made out of walrus ivory that were noted in Russian publications on archeology; however, they are not decorated. Nikolay Dikov defines one as a button; he found it in one of the Old Bering Sea Culture dwellings right next to Kozhevnikova cliff near Cape Shmidt. Kirill Dneprovskiy denotes an analogical artifact as an unidentified object. The badge with 15 indentations grouped in three rows was discovered for the first time, and the diameter of the indentations of the central row is bigger than the one of the side rows. Such a counting system perhaps presents a calendar (half month/half moon cycle), considering Eskimo tradition of counting by fives. The wooden badge is not decorated; its main decoration is the beautifully selected natural wood grain.

Seven ornamented plates, four of which have the whole surface on one side covered with decoration, were discovered in the complex of dwellings. Two were perhaps used for protection of the wrist (during shooting bow and arrow). One was decorated with a net design in combination with an oval that is formed by triple and double

parallel lines; the other one was decorated with a more complex composition made of diamonds and circles formed by double parallel lines. Two ornamented plates with one and three holes were hung or, possibly, sewed on hide clothing (head dress?). The similar ornamented plates (fragments) discovered during the excavation of dwelling #25, late East Thule Culture on Cape Kruzenstern, were interpreted by Louis Giddings and Douglas Anderson as sewed on decorations for the foreheads (*Giddings and Anderson 1986*). The first plate was decorated with a net motif formed by parallel lines. The second plate was com-

positionally complex that included ovals, triangles, and circles formed by double parallel lines. The parallel lines are scratched on the back surface of the first plate, and the indentations were formed on the second one from multiple scratching. Possibly this is a reflection of certain rituals.

A multitude of fishing tools is present. The summer fishing tools are represented by the nets made out of baleen (*nygakhpak*) and sinkers. A large number of walrus ivory central and side points, part of the harpoon assembly, are present. The winter ice fishing tools are represented by scoop-nets made of baleen (*kalyu*) (3 objects), sinkers



Figure 1. Top Row (left to right): fishing tools, toggling harpoon heads, hunting tools. Middle row (left to right): carved toggling harpoon head, stone point, sea mammal hunting tool. Bottom Row (left to right): remains of dwellings.

Photograph courtesy of A. Oreshkov

(45 objects), wooden floaters and composite hooks (5 objects) for the winter fishing pole (*manan*).

On one of the fishing sinkers, three dots mark the mouth and eyes of an animal (seal?). This depiction may have assured good luck. Multitude of fish figurines (also interpreted as whale figurines) are made out of baleen and have marked fins and tail. According to existing interpretation, they were used for ritual purposes. It is possible that these figurines were used as fish bait as well.

The hunting tools consist of fragments of simple wooden bows, composite bows (two halves connected with a bone plate) made of baleen, and arrow points. The arrow points with awl shaped bases (23 artifacts), with grooves and cogs are predominant. The points with a wedge-shaped base are also present. The large number of bird hunting tools are bolas made mainly from walrus teeth.

For moving across the ice the people of the Old Bering Sea Culture used ice grippers: a piece of baleen with inserted spikes made of walrus ivory (3 artifacts) or a bone plate made of whale rib (1 artifact) that were tied to the footwear. To move across snow crusted with ice and to break the ice, ice spires were used.

The seals harvested at the ice edge or near the ice holes were transported in hand pulled sleds, the runners of which are found in large numbers in the complexes of both cultures. However, the Old Bering Sea Culture runners are more complex. The ice from the ice hole was removed with net scoops made from baleen.

The tools of tundra gathering (digging of roots) and dwelling construction (loosening of earth and digging for semi subterranean dwellings) are hoes and picks made of walrus ivory as well as from walrus and whale ribs.

Utensils are represented by fragments of ceramic with linear stamped decoration, applied by both impressing method and dragging method, and the fragments of coil constructed ceramics. Fragments of ceramic without ornamentation are present in large numbers as well. Analyses of the fragments show the predominance of vessels with a round bottom; however, there were also three small vessels of truncated-conical form, with a strait or tapered bottom

that were probably used as oil lamps. Two of these artifacts do not have traces of soot deposits and perhaps belonged to children. Also 12 vessels and 8 fragments of vessels made of baleen with wooden bottoms and lids were found. Two have ivory/bone bottoms and lids.

The assemblage of children's tools (Punuk culture) includes wooden and wooden-baleen bows, spear points made from baleen and walrus ivory, arrows made of one piece of wood with bone/ivory points, miniature toggle harpoon points, boys' "male" polished slate knives, and girls' bone combs. All children's inventory mirror the "adult" objects, but are simpler and are denoted by small sizes.

The religious objects were also discovered in the dwelling. A figurine of a six-clawed bear is unique. The entire surface of the figurine on two sides is covered with a very complex decoration. The artifact side opposite to the bear's head depicts a whale head. An anthropomorphic figurine-pendant made of walrus ivory was exposed in the Punuk layer. The three duck figurines with a hole for hanging and apparently religious in nature were discovered as well.

Dwellings and constructions from different time periods are present in the settlement. The preserved remains two ancient dwellings, in the form of depressions on high ground, are located in the mouth of an un-named creek, on both of its shores. The Punuk dwelling #1 was a semi-subterranean hut of roundish shape with a long corridor-access-hole, with walls reinforced by rocks, whale vertebrae, and walrus skulls.

The dwelling interior was divided (almost in the center) by the whale vertebrae (three vertebrae high) and walrus skulls combined with large rocks. Wood, ribs, skulls, scapulas and lower jaw bones of whales were used to construct the roof. Judging from the small size of the bone, these may be the bones of a gray whale. Such dwelling complexes are characteristic for the dwelling construction tradition of the Old Bering Sea Culture.

One hundred feet (30 m) to the west of dwelling #1 the well-preserved remains of 11 meat storage caches are located. Their side walls and roofs are made of whale skulls and ribs and covered with sod on the top.

The extremely interesting artifacts, some of which are unique, discovered during the excavation of the site as well as threat of its destruction, warrant the necessary excavation and continuation of research. The new materials not only add to the characteristics of two very interesting Old Bering Sea cultures (ancestral for modern Eskimo), but the presence of clear stratigraphy change between Old Bering Sea and Punuk cultures, perhaps will help to clear the genesis, correlation and interaction of these maritime cultures.



Figure 2. Old Eskimo settlement at Kivak.

REFERENCES

- Giddings, J.L., and Douglas D. Anderson. 1986. *Beach Ridge Archeology of Cape Krusenstern: Eskimo and Pre-Eskimo Settlements around Kotzebue Sound, Alaska*. Publications in Archeology, 20. National Park Service. Washington D.C.